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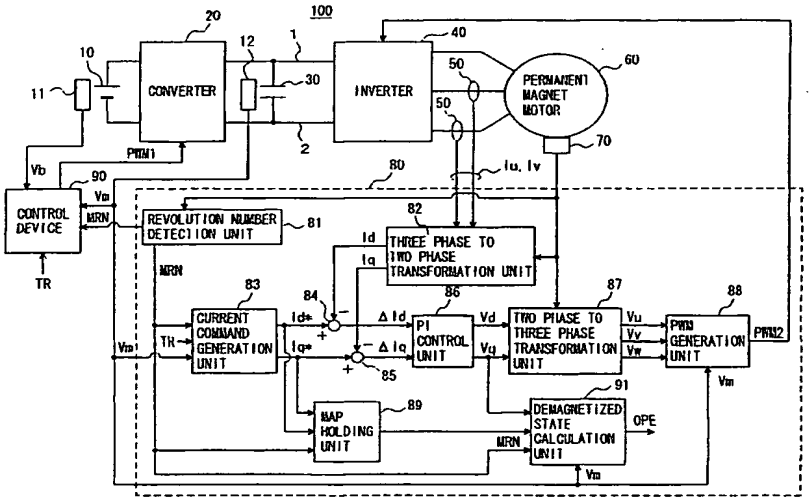
(54) Title: MOTOR DRIVE APPARATUS CAPABLE OF ACCURATELY ESTIMATING DEMAGNETIZATION OF PERMANENT MAGNET MOTOR



(57) Abstract: A map holding unit (89) holds, in the form of a map, a voltage control amount (Vq_map) of the q axis in a case where no demagnetization of a permanent magnet motor (60) occurs. Based on a motor revolution number, namely the number of revolutions of the motor (MRN) provided from a revolution number detection unit (81), a demagnetized state calculation unit (91) calculates a rotational angular velocity (ω). Then, based on the voltage control amount (Vq_map) from the map holding unit (89), a voltage control amount (Vq) to be controlled that is provided from a PI control unit (86) and the rotational angular velocity (ω), the demagnetized state calculation unit (91) calculates an amount of demagnetization (P (Vq_map - Vq) / ω) and outputs, if the amount of demagnetization is greater than a predetermined value, an operation signal (OPE) for controlling the operation of the permanent magnet motor (60).

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